

## ABSTRACT OF THE DISCLOSURE

A permanent magnet synchronous motor includes a stator and a permanent magnet excited rotor, with the stator provided with a winding which has cyclically repeating winding factors  $|\xi_p| = 0.945$ ,  $|\xi_{5p}| = 0.140$ , and  $|\xi_{7p}| = 0.060$ , and a skew angle  $\gamma = \frac{2\pi}{18p}$ , wherein  $p$  is the number of pole pairs.